

What is claimed is:

1. A compound secreted from lactic acid bacteria that comprises anti-inflammation activity.
2. The compound of claim 1, wherein said lactic acid bacteria are selected from the group consisting of *Lactobacillus* is *L. acidophilus*, *L. animalis*, *L. rhamnosus* GG, *L. johnsonii*, *L. murinus*, *L. plantarum*, *L. reuteri*, *L. salivarius*, *L. paracasei*, *L. delbrueckii*, *L. fermentum*, *L. brevis*, *L. buchneri*, *L. kefi*, *L. casei*, *L. curvatus*, *L. coryniformis*, *Brevibacterium*, *Streptococcus thermophilus*, and a mixture thereof.
3. The compound of claim 1, wherein said compound is a polypeptide.
4. The compound of claim 1, wherein said compound further comprises receptor-binding activity.
5. The compound of claim 1, wherein said compound further comprises cytokine expression regulating activity, chemokine expression regulating activity, or both.
6. A kit comprising the compound of claim 1.
7. A kit that comprises at least one isolated bacterium that produces claim 1.
8. An isolated bacterium that produces the compound of claim 1.
9. The bacterium of claim 8, wherein said bacterium is further defined as being capable of secreting the compound of claim 1.
10. The bacterium of claim 8, wherein said bacterium is *Lactobacillus*.

11. A culture comprising the bacterium of claim 8.
12. A kit comprising the bacterium of claim 8.
13. A method of reducing cytokine expression in a cell, comprising the step of administering to the cell a compound secreted from lactic acid bacteria.
14. The method of claim 13, wherein said cytokine expression is reduced post-transcriptionally.
15. The method of claim 13, wherein said method further comprises binding of said secreted compound to a G protein receptor.
16. The method of claim 13, wherein said cytokine is TNF- α .
17. The method of claim 13, wherein said cell is an immune cell.
18. The method of claim 17, wherein said immune cell is a macrophage.
19. A method of inhibiting inflammation in an individual, comprising the step of delivering a therapeutically effective amount of lactic acid bacteria to the individual, wherein said lactic acid bacteria inhibit said inflammation by a contact-independent mechanism.
20. The method of claim 19, wherein said lactic acid bacteria are further defined as producing a soluble compound that binds to a receptor on an immune cell.
21. The method of claim 20, wherein the method is further defined as inhibiting, at least partially, in said cell cytokine production, cytokine secretion, chemokine production, or a combination thereof.
22. The method of claim 21, wherein said inhibiting step is further defined as comprising inhibiting said cytokine production,

cytokine secretion, chemokine production, or a combination thereof, through inhibitory heterotrimeric G (Gi) protein activity.

23. The method of claim 21, wherein said cytokine is TNF- α .
24. The method of claim 21, wherein said chemokine is IL-8.
25. The method of claim 19, wherein the lactic acid bacteria are administered in combination with at least one additional therapeutic agent.
26. The method of claim 25, wherein the at least one therapeutic agent is selected from the group consisting of corticosteroids, sulphasalazine, derivatives of sulphasalazine, immunosuppressive drugs, cyclosporin A, mercaptopurine, azathioprine, and a mixture thereof.
27. The method of claim 19, wherein said individual is stricken with colitis, arthritis, synovitis, polymyalgia rheumatica, myositis, or sepsis.
28. Lactic acid bacteria secretions, said secretions being polypeptides, and said secretions having anti-inflammatory activity.